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**Al- Quds University**



**Knowledge and Attitudes of Nurses toward Drug  
Affecting Breastfeeding on Governmental Primary  
Health Care Clinics**

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# **Knowledge and Attitudes of Nurses toward Drug Affecting Breastfeeding on Governmental Primary Health Care Clinics**

Prepared by:

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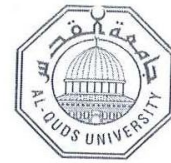
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Nursing - Palestine

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A Thesis Submitted in Partial Fulfillment of Requirements for the Degree of  
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### Thesis Approval

#### Knowledge and Attitudes of Nurses toward Drug Affecting Breastfeeding on Governmental Primary Health Care Clinics

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Signature.....  
Signature.....

Jerusalem – Palestine

## **Dedication**

I dedicate this work to Palestine

my homeland

my parents,

my husband,

and my brothers,

who has shown love and support from the beginning to end and encourages me to accomplish my work.

## **Declaration**

I Certify that this thesis submitted for the degree of Master, is the result of my own research, except where otherwise acknowledged, and this study (or any part of the same) has not been submitted for a higher degree to any other university or institution.

Signed:

Faten Madi

...../...../.....

## **Acknowledgment**

First, Allah helps me to complete this study and grant me the ability to study, to write, to read, to see and to think. I really, I extremely grateful for my God.

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## **Abstract**

Many breastfeeding women require to take the drug, especially those available over-the-counter, and the safe use of these is dependent on the advice provided by nurses. This study aimed to assess the knowledge and attitudes of nurses toward drug affecting breastfeeding on governmental primary health care clinics (PHCCs) in Gaza strip. Observational analytical cross-sectional study design was used to assess the knowledge and attitudes of nurses toward drug affecting breastfeeding on governmental PHCCs in the Gaza strip. A non-probability purposive census sample was applied and consisted of 150 nurses who currently work at governmental PHCCs in the Gaza Strip. A structured interviewing questionnaire as a tool was used to collect the data from the target female nurses who working on governmental PHCCs in all 24 clinics which directed by the ministry of health (MoH) in the Gaza Strip with a response rate of 96%. Data collection took place from April to June 2018. Data was analyzed using SPSS version 24 both descriptive and inferential statistical analysis were utilized including frequencies, means, percentage, T- test, and One-way ANOVA. The study results showed that half (50.0%) of the nurses who participated in the study aged between 31–40 years, less than half of them (40.0%) have bachelor degree, more than half of them (56.0%) have an experience between 11 – 20 years. Also, results showed that more than one-third (37.7%) of nurses were knowledgeable about drugs that affect breast feeding and that three-quarters (75.3%) of nurses have positive attitudes toward drugs affecting breast feeding. In conclusion, the study concluded that the nurses retain lack information and inadequate knowledge toward drug affecting breastfeeding. The study raised the need to provide protocols and give many courses in their work about drug affecting breastfeeding in these clinics in order to support those nurses.

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## **List of abbreviations**

<b>AAP</b>	American Academy of Pediatric
<b>ANOVA</b>	Analysis of Variance
<b>GS</b>	Gaza strip
<b>MoH</b>	Ministry of Health
<b>PHC</b>	Primary Health Care
<b>PHCCs</b>	Primary Health Care Clinics
<b>SPSS</b>	Statistical Packages for Social Science
<b>SIDS</b>	Sudden infant death syndrome
<b>UNRWA</b>	United Nations Relief and Works Agency
<b>USA</b>	United states of American
<b>WHO</b>	World Health Organization

# **Chapter 1**

## **Introduction**

### **1.1 Background**

World Health Organization (WHO) recommends breastfeeding as a main source of food for babies for the first six months, and encourages mothers to consider breastfeeding as the only feeding source. Between six months and two years old, it is recommended that mothers could use other supplemental sources (such as water, other liquids, or solid baby food) to feed their babies along with breastfeeding (WHO, 2013).

The Centers for Disease Control and Prevention (2012) states that one of the most effective preventative measures a mother can take to safeguard the health of her infant is to breastfeed. There is a wide range of variation in the practice of exclusive breastfeeding of developing countries for example Brazil 58% (Wenzel, et al., 2010). According to the World Bank (2014), collection of development indicators, compiled from officially recognized sources in Egypt was reported at 39.7%, Jordan at 22.7%, Sudan at 55.4% and West Bank and Gaza was reported at 38.6 % of infants who were exclusively breastfed for the first six months. On other hand, the use of medications by the nursing mother is a common reason for breastfeeding cessation. Health professionals may inappropriately advise to discontinue breastfeeding or to avoid taking essential drugs, due to an unnecessarily cautious approach (Sachs, 2013). Only a few drugs have been demonstrated to be absolutely contraindicated during breastfeeding (Berlin&van den Anker, 2013).

Therefore, the proposed study will take place as an initial step in Gaza strip to get the role of nurses in promoting, supporting and advice to use medication during breastfeeding and to find that appropriate nurse's intervention can result in a greater number of women oriented to avoid medication during breastfeed and to assess knowledge and attitude of nurses toward drug affecting breastfeeding in government at primary health care clinics in Gaza Strip.

## **1.2 Research Problem**

Breast milk has benefits; mothers have to be cautious as the things they consume can be passed to the baby through their breast milk. It is recommended that women completely avoid the use of any types of drugs while breastfeeding for the health of their babies. It is important that nursing mothers know the facts about drugs and breastfeeding. Therefore, the researcher is interested in promoting the awareness of knowledge and attitudes of nurses toward drug affecting breastfeeding in primary health care clinics in the Gaza Strip.

## **1.3 Justification**

Despite all efforts and preventive programmers of the United Nations Relief and Works Agency (UNRWA) and Ministry of Health (MoH) to encourage breastfeeding, there is a still major lack in programs that demonstrate the nurses' knowledge and attitudes towards drug affecting breastfeeding.

Primary health care clinics are the first line of dealing with patients where about 75% to 85% of the population seeks primary health care yearly. It provides both the initial and the majority of health care services of a person or population (Leiyu Shi, 2012).

The studies on this issue are limited because there are no previous published studies on the knowledge and attitude of nurses toward drug affecting breastfeeding in government at primary health clinics. So, the aim of this study is to assess the knowledge and attitudes of nurses toward drug affecting breastfeeding in government at primary health care clinics in

the Gaza strip. This will be beneficial to breastfeeding women and health care team as well as their babies.

## **1.4 Objectives**

### **1.4.1 General objective**

To assess the knowledge and attitudes of nurses toward drug affecting breastfeeding on governmental primary health care clinics in the Gaza strip.

### **1.4.2 Specific objectives**

1. To assess the level of nurses' knowledge toward drug affecting breastfeeding.
2. To identify the nurse's attitudes toward drug affecting breastfeeding.
3. To identify the relationship between nurses' knowledge and attitude toward drug affecting breastfeeding and socio demographic characteristics.
4. To suggest recommendations to policy makers to achieve an optimum breast feeding.

## **1.5 Research Questions**

1. What is the level of nurses' knowledge toward drug affecting breastfeeding?
2. What is the source of information about drug affecting breastfeeding among nurses'?
3. Are the attitudes of nurses' linked to drug affecting breastfeeding and socio demographic factors?
4. Are there differences in nurses' knowledge and attitude toward drug affecting breastfeeding related to socio demographic characteristics?



## **1.6 Operational definition of variables**

### **1.6.1 Knowledge**

A familiarity, awareness or understanding about drug affecting breastfeeding which is acquired through experience or education.

### **1.6.2 Attitude**

A predisposition or a tendency to responds positively or negatively towards a certain idea/situation (regarding Drug affecting breastfeeding).

### **1.6.3 Nurse**

Who has graduated from a nursing program and met the requirements outlined by Palestine country to work in government clinics.

### **1.6.4 Drug**

Any substance (other than food that provides nutritional support) that, when orally, intravenous drug.

### **1.6.5 Breastfeeding**

An infant's consumption of human milk with no supplementation of any type.

## **1.7 Theoretical definition of variables**

### **1.7.1 Knowledge**

Is a familiarity, awareness, or understanding of someone or something, such as facts, information, descriptions, or skills, which is acquired through experience or education by perceiving, discovering, or learning. Knowledge can refer to a theoretical or practical understanding of a subject. It can be implicit (as with practical skill or expertise) or explicit (as with the theoretical understanding of a subject); it can be more or less formal or systematic. (Oxford dictionary, 2010).

### **1.7.2 Attitude**

Is a hypothetical construct that represents an individual's degree of like or dislike for an item? Attitudes are generally positive or negative views of a person, place, thing, or event which is often referred to as the attitude object. Most attitudes are the result of either direct experience or observational learning from the environment (Aronson & Gonzales, 1990)

**1.7.3 Nurse** Who has graduated from a nursing program and met the requirements outlined by a country, state, province or similar licensing body to obtain a nursing license. (Oxford dictionary, 2012).

**1.7.4 drug** Is any substance (other than food that provides nutritional support) that, when inhaled, injected, smoked, consumed, absorbed via a patch on the skin, or dissolved under the tongue causes a temporary physiological (and often psychological) change in the body. (Medical Dictionary, 2014)

**1.7.5 Breastfeeding** Is the normal way of providing young infants with the nutrients they need for healthy growth and development. Virtually all mothers can breastfeed, provided they have accurate information, and the support of their family, the health care system and society at large. ( <http://www.who.int/topics/breastfeeding/en/>)

### **1.7.6 The Primary Health Clinics (PHCCs)**

Is the basic structural and functional unit of the public health services in developing countries. PHCCs were established to provide accessible, affordable and available primary health care to people, in accordance with the Alma Ata Declaration, 1978 by the member nations of WHO. (Alma Ata, 1978)

## **1.8 Context of the study**

### **1.8.1 Palestinian Population in Palestine**

In 2017, according to the Palestinian Central Bureau of statistics (PCBS) census, the population of Palestine was 4,705,601 of whom 2.4 million were males compared to 2.3 million females, While West Bank had 2.8 million inhabitants, 60.1% compared to 1.38 million females, while the population of Gaza Strip was 1.87 million, 39.9% of the total population of Palestine, of which about 950 thousand were females.

#### **1.8.1.1 Gaza strip**

Gaza strip is a narrow piece of land lying on The Gaza Strip lies on the Eastern coast of the Mediterranean Sea. It borders Egypt on the south and Mediterranean Sea on the west and Israel on the east and north. Its position on the crossroads from Africa to Asia continents, for their location made it a target for occupiers and conquerors over the centuries. The last of these was Israel who occupied the GS in 1967. Gaza strip is a very crowded place with an area 365 Km<sup>2</sup> and constitutes only 1.3% of the total area of the Palestinian land. In the year 2016, the total population in GS was 1.87 million, mainly concentrated in the cities, a small village, and eight refugee camps that contain two-thirds of the population of GS. (PCBS, 2017).

#### **1.8.1.2 Demography of Palestine**

Palestine lies within an area of 27,000 square kilometers (Km<sup>2</sup>), expanding from Ras Al-Nakoura in the north to Rafah in the south (annex 1). In Gaza Strip, the population density is estimated at about 4,100 inhabitants / km<sup>2</sup>. It comprises five governorates: North Gaza, Gaza, Mid Zone, Khan Younis and Rafah (PCBS, 2017).

41.1 of the population in state of Palestine was refugees, about 1.9 million refugees in West Bank and Gaza Strip, In GS the population density in the refugees' camps is one of the highest in the world. (PCBS, 2017).

In 2017 Palestinian Central Bureau of Statistics (PCBS), Population distribution by sex shows that 50.9% of the population is male and 49.1% is female, Palestinian society remains a young society, the population of the age under 15 years was 38.6% of the total population in Palestine, 36.5% in West Bank and 41.7 in Gaza Strip.

The individuals of aged 65 years and above were 3.2%, with difference between West Bank and Gaza Strip, 3.5% in West Bank and 2.8% in Gaza Strip.

### **1.8.2 Palestinian Health System**

Primary Health Care since the Ministry of Health assumed its responsibilities at the end of 1994, the Ministry has emphasized the importance of implementing the principles of PHCCs. Primary health care is provided by various health service providers including the Ministry of Health, non-governmental organizations, the United Nations Relief and Works Agency for Palestine Refugees (UNRWA) and military medical services. The centers of the Ministry of Health constitute 62.7% of the total centers working in the field of primary health care in Palestine. (MoH, 2017).

#### **1.8.2.1 Primary Health Care Services in Palestine**

Primary health care system is a major component of Palestinian health care system; this system has provided health care to all Palestinian people especially for children and other vulnerable groups. Primary health care centers in Palestine provide primary and secondary health care services as well as tertiary services.

The MOH is working with other health sectors in providing the primary health services mainly with UNRWA, and NGOs sector. In 2017, there were 743 PHCCs in Palestine; (147 centers in Gaza and 583 centers in West Bank). Classification of PHC according to providers shows that, the MOH is considered the main provider with 62.7% of the total PHC centers, followed by the NGOs with 25.8%, then UNRWA with 8.1%. It is worth to mention that, the private sector plays an important role in providing PHC services to

Palestinian people but, there is limited information about these centers. The average ratio of persons per center was 5,984 (11,725 in Gaza Strip and 4,408 in West Bank). The number of PHC centers expanded from 454 in 1994 to 743 in 2017, with an increase of 63.7% since 1994 (MoH, 2017)

#### **1.8.2.2 PHC Centers by Level**

The number of PHC centers of MOH in Palestine increased from 203 in 1994 to 466 in 2016, with variation rate of 129.6% .The MOH classifies PHC centers into four levels of which 71 clinics are level one, constituting 15.2% of the total centers of MOH and 245 clinics are level two, accounting for 52.6% of the total clinics 221, clinics were classified as level three 26.0% of the total centers and 24 clinic are level four; 5.1% of the total centers.

PHC centers in MoH, offer a range of health services, 306 centers provide family planning services, 234 provide specialized services, 37 provide oral and dental health services, and 188 provide laboratory services (MoH, 2016).

## Chapter 2

### Conceptual Framework and Literature Review

#### 2.1 Conceptual framework

The conceptual framework consists of four categories, show knowledge and attitudes of nurses the first category includes socio-demographic characteristics which will be measured by the nurses' feedback on questionnaire. This domain could discuss many variables that affect knowledge and attitudes of nurses toward drug affecting breastfeeding, such as age, clinic address, qualifications and experience.

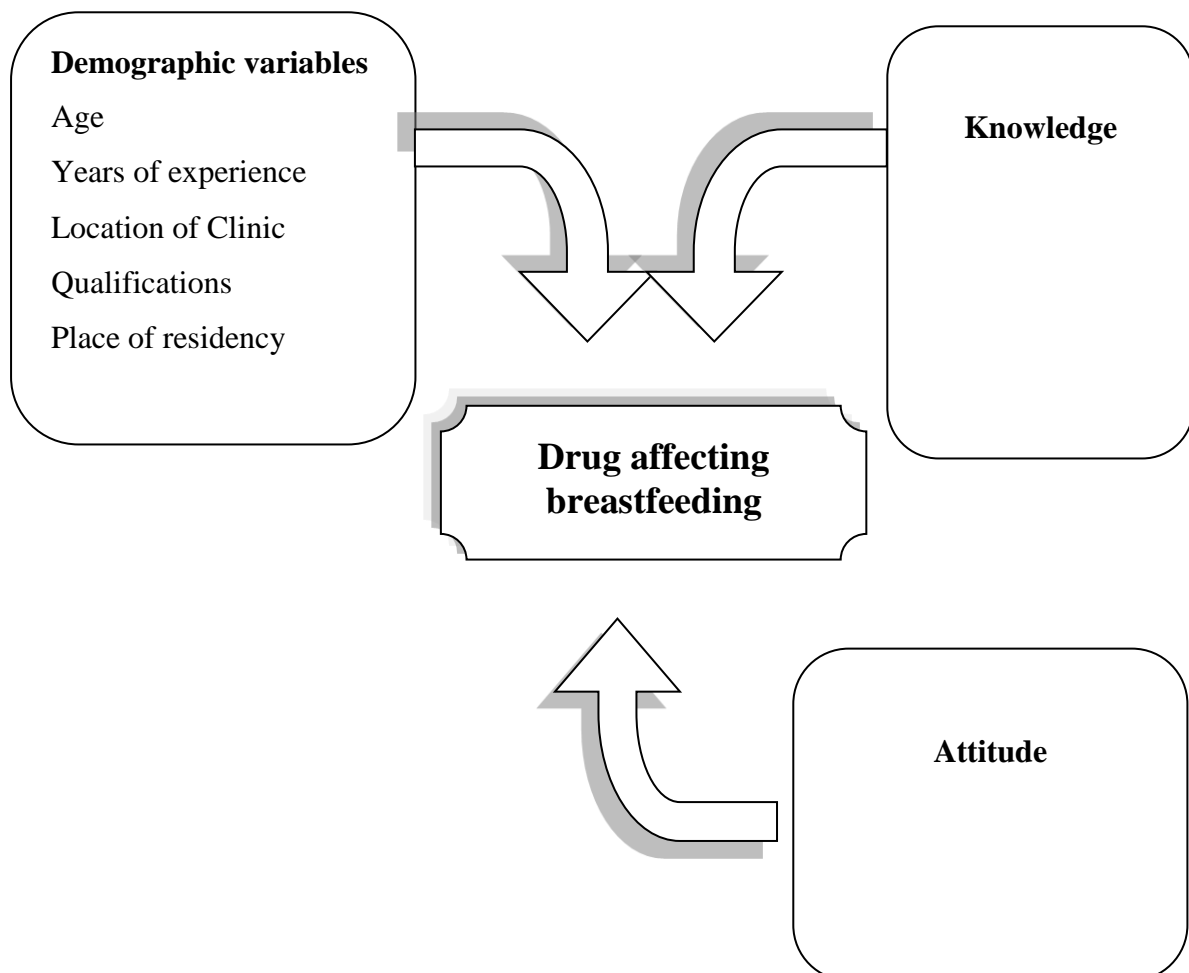


Figure (2-1): The relationship between Knowledge and attitude of nurses, with different socio demographic factors (**Self-develop model**)

## **2.2 Literature review**

### **2.2.1 Background**

Nurses play an important role within the healthcare system, providing and assisting in the provision of primary, secondary and tertiary level health care. Typically, their work is health education and counseling demanding.

Almost all medications taken by a breastfeeding mother will enter the milk to a certain degree. The majority of them are found in such low doses in the breast milk that they have no clinical relevance for the infant. (Della, 2006) Formula feeding is associated with higher morbidity and mortality in all socioeconomic groups. (Koren, 2009)

Drug concentration in the breast milk is directly related to the amount of the dose, duration of drug consumption, the Daily frequency of breastfeeding and the mother's health condition (Fríguls et al., 2010).

The uncertainty and fear due to lack information on the medications, the drugs transferred into infant through breast milk may suspend the breastfeeding and cause the irregular and insufficient use of medication for mother. At the time on which it most needs the breast milk baby, is deprived of nutrients and emotional potential of the milk (Eren et al., 2013).

In deciding to use the drug, beside the drug effects on the breastfed baby's growing, the risks without medication to mother and infant health conditions should be evaluated. Therefore, it is important to properly inform nursing mothers of the risks of drug therapy and the necessity of breastfeeding (Amir and Pirotta, 2010).

### **2.2.2 Breastfeeding**

Breastfeeding not only benefits the infants and mothers, but also has socioeconomic benefits for the family, employers, the health care system, and the nation (AAP, 2012). Breastfeeding is less expensive than buying infant formula. The benefits of improved health from breastfeeding may potentially reduce the number of illness-related visits to

healthcare facilities and thus reduce medical costs. A pediatric cost analysis revealed that if 90% of US families could adhere to medical recommendations to breastfeed exclusively for 6 months, the United States would save \$13 billion per year and prevent an excess of 911 deaths, nearly all of which would be infants (Bartick & Reinhold, 2010).

#### **2.2.2.1 Advantages of Breastfeeding**

Studies have shown the emotional and psychological importance, as well as the bonding effects of breastfeeding to both mother and child. For instance, Dermer (2001) stated that breastfeeding helps to build very important bond with mother-child both physically and emotionally. The skin-to-skin contact between mother and infant is special that mothers would have not experienced before. Dermer (2001) said that “Holding a baby in the arms and looking into their eyes while he/she feeds, knowing that you are giving him everything he needs to develop and grow will bring your protective maternal instincts to the surface”. Breastfeeding also improves the cognitive, linguistic and motor development of the child (Oddy et al., 2009).

#### **2.2.2.2 History and Importance of Breastfeeding**

Infants have been breastfed since the beginning of humanity. Mothers and wet nurses have breastfed babies for hundreds of thousands of years. Only since the 20th century has reasonable alternatives to breastfeeding such as formula become available. These formulas worked so well, that women began to use them instead of breastfeeding. Manufacturers promoted the baby formulas and suggested that the use of baby formulas was the modern and better way to feed babies. By 1950, more than half of the babies in the United States of American (USA) were fed some form of baby formula. By the 1970s, years of research validated that breast milk is the best source of nutrition for infants, containing unique elements that are not found in any baby formulas. The AAP (2005) stated that human milk



is species-specific, and all substitute feeding preparations differ markedly from it, making human milk uniquely superior for infant feeding.

Extensive research on the biology of human milk and on the health, outcomes associated with breastfeeding has established that breastfeeding is more beneficial than formula feeding (U.S. Department of Health & Human Services, 2010).

#### **2.2.2.3 Barriers to Breastfeeding that Influence Breastfeeding**

National efforts to promote breastfeeding have been successful at increasing rates of breastfeeding initiation. Despite the increased incidence of breastfeeding initiation, less than one third of infants are being breastfed beyond 6 months of age (CDC, 2012), and many potential benefits are being forfeited. Even though evidence demonstrates that breastfeeding reduces many health risks for mothers and children, numerous barriers to breastfeeding still exist.

Gilmour et al, (2009) report that breastfeeding women perceive a need to be educated about the realities of breastfeeding to feel better prepared for the experience. To enhance breastfeeding promotion strategies in the context of recent recommendations of exclusive breastfeeding for the first six months of life, it is important to have a good understanding of mothers' knowledge of the current recommendation on breastfeeding and their intentions to meet the recommendation (Ming Wen et al., 2009).

#### **2.2.3 Benefits of breastfeeding for mothers and babies**

Breastfeeding has short-term and long-term benefits for infants and mothers.

##### **2.2.3.1 Breastfeeding benefits for infants**

The components of breast milk provide the needed nutrition for babies, and boost the baby's immune system. These breast milk components are easier to absorb and digest than baby formula because it contains living growth factors, hormones and enzymes which help

a baby to easily digest all the goodness from every feeding (The Office on Women's Health, 2012). Breast milk composition starts as colostrum then changes to mature milk, which gives the child the appropriate nutrition for his/her development process from newborn to older infant (Powe, et al., 2011). One of the most important benefits of breast milk is that it contains living components such as infection fighting antibodies, white blood cells, red blood cells, and anti-viral factors (Taylor, 2013).

In the United States, infants who are breastfed have lower mortality rates compared to infants who were not breastfed (Chen & Rogan, 2004). Also, breastfeeding is associated with decreasing acute illnesses such as gastrointestinal infections, lower respiratory tract diseases and acute otitis media (Mountford & Salcines, 2006). Further, in developed countries researchers found that for infants who were not breastfed risk of dying from infectious diseases in the first month is six times greater than infants who were breastfed (Chen & Rogan, 2004). Similarly, breastfeeding has been linked to the decrease in the risk of gastrointestinal infections, lower respiratory tract diseases and acute otitis media for infants in developed countries (Stanley et al., 2007). However, a published report from WHO claimed that breastfeeding has a small association with preventing obesity (Horta & Victora, 2013). Breastfeeding reduced the percentage for obesity at school age by about 20%, after modifying for related factors such as infant birth weight, parental overweight, parental smoking, dietary factors, physical activity and maternal socioeconomic status (Owen et al., 2005).

#### **2.2.3.2 Breastfeeding benefits for mothers**

Practicing breastfeeding helps mothers lose weight after pregnancy and stimulates the uterus to return to its previous position before pregnancy (The Office on Women's Health, 2012). A study about the association between duration of lactation and incidence of type 2 diabetes, was conducted with two groups of mothers in the Nurses' Health Study (NHS).

For the first group, without history of gestational diabetes, the risk of developing type 2 diabetes was reduced 4% for each additional year of breastfeeding. For the second group with gestational diabetes, the risk of developing type 2 diabetes was reduced 12% for each additional year of breastfeeding (Stuebe et al., 2005). Another advantage for breastfeeding is decreasing the risk of breast cancer among breastfeeding mothers. According to Collaborative Group on Hormonal Factors in Breast Cancer (2002), there is an association between breastfeeding and breast cancer, and the longer women breast feed the more they are protected against breast cancer.

#### **2.2.4 Drug**

Almost all medicines pass into breast milk in small amounts. Some have no effect on the baby and can be used while breastfeeding. (U.S. Department of Health and Human Services, 2010) Many medications are known to significantly suppress milk production, and breastfeeding is actually especially recommended for mothers who smoke, because of its protective effects against sudden infant death syndrome (SIDS) (Lawrence, 2016). With respect to alcohol, the AAP states that when breastfeeding, "moderation is definitely advised" and recommends waiting for 2 hours after drinking before nursing or pumping (AAP, 2017). A 2014 review found that "even in a theoretical case of binge drinking, the children would not be subjected to clinically relevant amounts of alcohol [through breastmilk]", and would have no adverse effects on children as long as drinking is "occasional"(Haastrup et al., 2014)

##### **2.2.4.1 Affects the concentration of drug in milk**

###### **2.2.4.1.1 Maternal plasma concentration**

Passive diffusion is the primary pathway by which drugs enter milk. There is a good concordance between the time-course of maternal plasma-drug concentration and milk-drug concentration. Maternal plasma concentration is also affected by the drug's

distribution into different tissues. A high volume of distribution (as for sertraline) will contribute to a lower maternal plasma concentration and a subsequent lower concentration in milk.

#### **2.2.4.1.2 Maternal plasma protein binding**

Hale and Rowe (2014) stated that Transfer into breast milk is also influenced by the extent to which the drug is bound by maternal plasma proteins. Free unbound drug diffuses readily while highly protein-bound drugs like ibuprofen or warfarin (both 99% protein bound) are unable to diffuse in significant amounts Sertraline is highly protein bound (98%) so overall it will be minimally transferred to the breastfed baby. By comparison, venlafaxine has much lower protein binding and so more of the drug will be present in milk.

#### **2.2.4.1.3 Size of the drug molecule**

Most drug molecules, including alcohol, nicotine and caffeine, are small enough to enter milk. Exceptions are drugs with high molecular weights such as heparins and insulin.

#### **2.2.4.1.4 Degree of ionization**

Drugs cross membranes in an un-ionized form. Milk is generally slightly more acidic (pH 7.2) than the mother's plasma (pH 7.4) so it attracts weak organic bases such as oxycodone and codeine. (Begg et al., 2002) Such drugs become ionized and 'trapped' in the milk. Conversely, weak organic acids such as penicillin tend to be ionized and held in maternal plasma.

#### **2.2.4.1.5 Lipid solubility**

In addition to the passive diffusion into the aqueous phase, lipid-soluble drugs such as citalopram (Rampono et al., 2000) may have co-secretion by dissolution in the fat droplets

of milk. ( Ilett & Kristense, 2005) In practical terms, this may not be of concern. It would not be an indication to change therapy if citalopram has been effective, but infant drowsiness should be monitored. Although the fat content of the milk varies according to infant age and phase of the feed, this is unlikely to impact on the choice of drug therapy.

#### **2.2.4.1.6 Maternal pharmacogenomics**

A growing understanding of the influence of pharmacogenomics is well exemplified with codeine which is variably metabolized to morphine by the cytochrome P450 (CYP) 2D6 enzyme. The ultra-rapid metabolizer phenotype occurs in up to 10% of Western Europeans and up to 30% of North Africans. Repeated codeine doses in these women produce significant amounts of morphine. Rapid transfer from maternal plasma to the milk may result in central nervous system depression and potentially infant death. ( Rampono et al ., 2000) Codeine should be avoided during breastfeeding (Iedema , 2010) and alternative analgesia is recommended, such as paracetamol or ibuprofen.

#### **2.2.4.1.7 Drugs used to stimulate milk production**

Domperidone and metoclopramide are galactogogues and have both been used off-label to stimulate prolactin and enhance milk supply. However, these drugs do not have high evidence of efficacy for this indication. (Australian Medicines Handbook, 2015) Also, there are concerns about the overuse of domperidone given that it may be prescribed on discharge from obstetric hospitals and used long term, sometimes at high doses. Non-pharmacological approaches to boost milk supply, such as correct advice, support and more frequent breastfeeding, are preferable.

### **2.2.5 Knowledge**

Knowledge is defined as expertise, and skills acquired by a person through experience or education, the theoretical or practical understanding of a subject, what is known in a

particular field, facts, information, awareness or familiarity gained by experience of a fact of situation. Philosophical debates in general start with Plato's formulation of knowledge as 'Justified true belief'. There is however no single agreed upon definition of knowledge presently, or any prospect of one, and there remain numerous competing theories (Durst & Wilhelm, 2012).

Knowledge is also defined as a belief that is true and justified. This definition has led to its measurement by methods that rely solely on the correctness of answers (Engel, 2017). A correct or incorrect answer is interpreted to mean simply that a person knows or does not know something. Such methods of measurement have serious deficiencies that can be alleviated by expanding the definition of knowledge to include the test-takers certainty (Landauer, 2017).

#### **2.2.5.1 Knowledge transfer**

Knowledge Transfer (an aspect of Knowledge Management) has always existed in one form or another through on-the-job discussions with peers, apprenticeship, and maintenance of agency libraries, professional training and mentoring programs. Since the late twentieth century, technology has played a vital role in Knowledge Transfer through the creation of knowledge bases, expert systems, and other knowledge repositories (Chang et al., 2012). The goal of transferring knowledge to others known as Knowledge Transfer is to:

1. Identify key positions and people where potential knowledge loss is most imminent.
2. Assess how critical the knowledge loss will be.
3. Develop a plan of action to ensure the capture of that critical knowledge and a plan of action to transfer it (Mei, 2012).

Knowledge transfer important because a significant percentage of the state's workforce is nearing retirement age over the next ten years. These employees have acquired a

tremendous amount of knowledge about how things work, how to get things done and who to go to when problems arise. Losing their expertise and experience could significantly reduce efficiency, resulting in costly mistakes, unexpected quality problems, or significant disruptions in services and/or performance (Hennekam & Herrbach, 2013).

#### **2.2.5.2 Knowledge Management**

Knowledge Management refers to practices used by organizations to find, create, and distribute knowledge for reuse, awareness, and learning across the organization. Knowledge Management programs are typically tied to organizational objectives and are intended to lead to the achievement of specific outcomes such as shared intelligence, improved performance, or higher levels of innovation (Dalkir & Liebowitz, 2011). Capturing and sharing critical knowledge and expertise should be occurring continuously among employees. In many cases, however, it is not and this need becomes pressing when a valued employee is preparing to retire or change positions (O'Dell & Hubert, 2011). When an organization is considering implementing a knowledge transfer plan it is important to answer several questions:

1. Is the organization going to fill the vacant position or reassign the duties?
2. Are all the duties of the position still important to the mission of the organization?
3. Is there a need to update the position description?
4. Will the position change, remain as is, or be eliminated once the employee leaves?

#### **2.2.5.3 A practical way to measure a person's knowledge**

To measure something means to assign a number to a characteristic (knowledge) of an object (a person) or event according to a set of rules. It is the set of rules by which the number is assigned that defines the meaning of the number. The currently used multiple-choice test or any other epistemic method may be considered as a "set of rules" by which the numbers (scores) or measurements are produced - and thus, knowledge may be

operationally defined. Most tests used today for measuring a person's knowledge on a topic are aimed at composing test items that represent the topic; and are fair and unbiased, i.e. not influenced by the test takers' characteristics other than knowledge, such as gender or ethnicity, which might influence the measurement. To determine whether a person possesses knowledge on, say, simple addition, we can ask questions that are representative of the topic, such as 'What is the sum of  $12 + 13$ ?' (Streiner et al., 2015)

Current testing practice is to observe which alternative a person selects and infer that s/he knows (if a correct answer is selected) or does not know (if the correct answer is not selected) how to add two digit numbers.

### **2.2.6 Attitude**

Attitude defined as a mental or neural state of readiness, organized through experience, exerting a directive or dynamic influence on the individual's response to all objects and situations to which it is related. A simpler definition of attitude is a mindset or a tendency to act in a particular way due to both an individual's experience and temperament (Copaci et al., 2017).

When we speak of someone's attitude, we are referring to the person's emotions and behaviors. A person's attitude toward preventive medicine encompasses his or her point of view about the topic (e.g., thought); how he or she feels about this topic (e.g., emotion), as well as the actions (e.g., behaviors) he or she engages in as a result of attitude to preventing health problems. An attitude includes three components: an affect (a feeling), cognition (a thought or belief), and behavior (an action) (Mason & Butler, 2010).

#### **2.2.6.1 Formation of Attitudes**

Attitude formation is a result of learning, modeling others, and our direct experiences with people and situations. Attitudes influence our decisions, guide our behavior, and impact what we selectively remember (not always the same as what we hear). Attitudes come in



different strengths, and like most things that are learned or influenced through experience, they can be measured and they can be changed (Bridenball & Jesilow, 2008).

#### **2.2.6.2 Changing Attitudes**

To change a person's attitude, you need to address the cognitive and emotional components. How would you convince another person to start an exercise program when the individual may say, "I don't have enough time" or "I'm just too busy" or "I don't want to risk being injured"? One approach would be to challenge someone's behavior by providing new information. As an example, explain to the other person how you made time in your day and, as a result, both your cholesterol level and blood pressure decreased (Bearman et al., 2015).

#### **2.2.6.3 Measurement of Attitudes**

This information is helpful for healthcare managers to determine if management is "doing the right things" for retaining and motivating employees (Mbindyo et al., 2009). As an example, Lowe et al. (2003) found that workers who rated their work environments as "healthy" (task content, pay, work hours, career prospects, interpersonal relationships, security) reported higher job satisfaction, morale, and organizational commitment and lower absenteeism and intent to quit. Employee attitude surveys are usually designed using 5-point Likerttype ("strongly agree–strongly disagree") or frequency ("never–very often") response formats.

#### **2.2.7 Research on drug affecting breastfeeding**

Passage of medications from maternal plasma to breast milk is dynamic process- drugs are entering and exiting in an active manner (Hale, 2003) almost all medications taken by a breastfeeding mother will enter the milk to a certain degree (Della, 2006). Among study in lithuania that 22% women who discontinued breastfeeding cited medication as the reason for stopping. (Pilvinienė et al., 2006) the level of medicine in the mother's milk is generally

far below the therapeutic level for an infant- mostly under 3% of a therapeutic dose per kg bodyweight. (Lawrence et al., 2007). one review of enquiries from health professionals about drug safety to an expert center found that advice was given to stop breastfeeding in only 1.7% of queries (Amir, 2007). Another study conducted by (Hale et al., 2007) some medicines have such a large molecular weight that they do not enter milk; heparin is one example. According to the American Academy of Pediatrics 2013 (AAP), health care providers should weigh the risks and benefits when prescribing medications to breastfeeding and the US center for disease control have called for public health action to ensure that evidence-based information about safety of drugs during lactation is easily accessible to women and health professionals (Lagoy et al., 2005). Health professionals need to look drugs up in a reliable source (Akus & Bartick, 2007). Breastfeeding women who have recently given birth may encounter several medical conditions in which the use of medications cannot be avoided. More than 50% of postpartum women, either breastfeeding or not. study carried out by (Saha et al., 2015). around 33% and 17% of breastfeeding women took prescribed and over-the-counter medications, respectively, during breastfeeding. Additionally, it has been reported that the most commonly used medication categories were analgesics, antibiotics, gastrointestinal, cardiovascular medications and antidiabetic medications (Al-Sawalha et al., 2016).

A survey from the Netherlands conducted by Schirm et al. (2004) To survey drug use by breastfeeding women, and to compare this with non-breastfeeding women. revealed did not use any drug because of breastfeeding or did not breastfeed because of drug use.

The review was conducted by (Safeera et al. 2011) to investigate the literature relating to health professionals' and women's knowledge, attitudes and practices towards medication use and safety in breastfeeding.as a result of the inconsistent information available for all stakeholders, pharmacists and other health professionals seem to be relying on their own

personal experience (or a lack of it), resulting in variable practices that may mean recommending the cessation of breastfeeding, health professionals need to be rigorously trained on communicating with breastfeeding women.

Revealed that the limited literature available indicates that health professionals have poor knowledge, as well as positive attitudes and variable practices that are mostly guided by personal experience, towards medication use in breastfeeding women. A previous report by Amir and Pirotta (2009) found that most general practitioners the bound-on books, internet considered pharmacist reliable and available sources of drug information.

The study conducted by Frank (2010) to describe various factor that income into play when a breastfeeding mother is taking medications. Show that mothers can continue breastfeeding while taking medication. The study carried out in Australia aimed to investigate the perspectives of community pharmacists on medication use and safety in breastfeeding. the random sample consisted of 1166 pharmacies. the results showed that one hundred and seventy-six pharmacists responded (51% female). Of the 52% of participants with children. The majority (92%) were confident about supplying or counseling on medication during breastfeeding. (Martine et al., 2013)

The study conducted by Riccardo et al. (2016) health professionals should acquire update scientific information and consider not only the risk of drug exposure through mother's milk.

A descriptive study carried out at a State Hospital in Sakarya aimed the purpose of this study is to investigate the knowledge and practice of the mothers about drug use while breastfeeding. the study sample consisted of all the mothers aged 18 years or above who applied to a pediatric outpatient clinic at a state hospital Sakarya. the results indicated that the %37.7 of the participating mothers were in the 20-24 age group, and the average lactation period became  $6.74 \pm 3.80$  (n=171). 63.5% of the participants were a nuclear

family, 61.5% of a middle-income level, 52.9% of primary/secondary school graduates, 86.2% of housewives, and 53.3% of had their first experience of breastfeeding. 67.1% of participants stated that they do not have information about the drugs that definitely should not be used in their breastfeeding period. (Yalnizoglu Caka et al., 2016)

Study conducted by Nour et al. (2017) to assess attitude and knowledge of health care provider in Jordan about the safe use of medication during breastfeeding revealed the awareness of health care provider among nurses had low level of knowledge and nurses were more likely to have low knowledge than physicia

## **Chapter 3**

### **Materials and Methods**

#### **3.1 Introduction**

This chapter described the materials and the methods of the study. It is defined as the way in which relevant information is gathered in order to answer the research questions or analyze the research problem including research approach, research design, instrument modifications, recruitment sample, study population, eligibility criteria, pilot study, data collection procedure and plan for data analysis, ethical and administrative approval. Finally, it described limitation of the study.

#### **3.2 Study design**

Observational, Descriptive, cross-sectional study design was used to assess knowledge and attitudes of nurses toward drug affecting breastfeeding at government PHCCs.

This design was chosen because it is one of the best designs because it is cost effective and enables the researcher to meet the study objectives in a short time period. Moreover, it is practical and manageable (Polit & Beck, 2012).

#### **3.3 Study population**

The target population consists of all female nurses who are currently working in PHCCs in Gaza. The total number of PHCCs nurses in Gaza governmental clinics is 394 nurses.

#### **3.4 Sample size and sampling method**

Participants were identified by means of non-probability sampling technique using the purposive type which was drawn from the three levels of PHCCs in the Gaza governorates, (II, III, and IV) at different geographical areas along the Gaza Strip, the PHCCs were chosen by census sample technique and only the female nurses were recruited from the target population to meet the study objectives, from the target population which was 394 nurses both gender among them only 194 were female nurses based on the below equation

to calculate our sample size, the proposed sample size was (150) eligible participants drawn from all target nurses who are currently working at governmental PHCCs in the Gaza Strip, samples were being proportionate to each health center. All female nurses fulfilling the inclusion criteria were recorded as eligible for the for-data collection. In order to calculate the sample size, Monkey survey online program was used and resulted in sample size at least 130 cases for a representative sample at 95% confidence interval and 5% margin of error, (**Annex 4**). The researcher took into consideration the following parameters during sample size calculation:

- The total number of female nurses having work at governmental PHCCs in Gaza Strip was 194 female nurses,
- Confidence interval 99%,
- A margin of error 5%.

The study sample was 130, and the researcher increased the sample size by 20% to be 156 cases to cover the possibility of non-respondents but six refuse to share.

**Table 3.1: Sample size of the study populations and their distribution in PHCCs.**

<b>Residency</b>	<b>Population</b>	<b>Sample</b>
North	78	22
Gaza	113	42
Midzone	109	18
Khanyonis	50	36
Rafah	44	32
<b>Total</b>	<b>394</b>	<b>150</b>

### **3.5 Study Setting**

The study had been carried out on all the governmental PHCCs in the Gaza strip, at the three different levels (II, III and IV).

### **3.6 Study variables**

#### **3.6.1 Independent variables considered**

Age, education level, experience, clinic address, place of residency (was measured by nurses).

#### **3.6.2 Dependent variables considered**

Knowledge and attitudes of nurses are considered outcome variables.

### **3.7 Eligibility criteria**

#### **3.7.1 Inclusion criteria**

- Female nurses who work on governmental primary health care clinics
- Primary health care clinics of the MoH.
- Centers from the three different levels (II, III and IV) which were previously selected.

#### **3.7.2 Exclusion criteria**

- Volunteer female nurses who work on governmental primary health care clinics
- Male nurse who work on governmental primary health care clinics
- Those who refuse the participation.

### **3.8 Period of the study**

The study was conducted during the period between January and October 2018.

### **3.9 Ethical Consideration and procedures**

The researcher was committed to all ethical considerations required to conduct a research.

First, ethical approval was obtained from Al-Quds University (Annex 5), Helsinki Committee, (Annex 6) and MoH represented by Human Resources Development (Annex7). Additionally, a written consent form was signed voluntarily by all willing participants.

### **3.10 Instrument of the study**

The researcher will develop his own tools to collect required data. Interviewing face to face questionnaire will be developed to assess knowledge and attitudes toward drug affecting breastfeeding on governmental PHCCs based on the conducted research literature globally and locally. Guidance from researchers worked before in this field will perform. Moreover, an expert panel team of researchers will be consulted to assess clarity and relevance of the newly developed questionnaire to the objectives of the study in term of content validity.

#### **3.10.1 Questionnaire**

A structured interviewing questionnaire was distributed to (150) female nurses who were working in governmental PHCCs and the translated Arabic version. The data was collected by the researcher himself to avoid any possible bias.

#### **3.10.2 Questionnaire design**

- The questionnaire was designed in English language (Annex 2). Then translated to Arabic language (Annex 3). Both were revised by those experienced people in Arabic, English language.
- Questionnaire was developed with closed- ended questions (yes or no).
- A three-point Likert scale also used (1= disagree, 2= not sure, 3= agree).
- The questionnaire is divided to three parts: first part questions will be related to general demographics such as age, gender and experience years. The second part questions will measure knowledge and third part questions measure attitude.

### **3.11 Response rate**

The number of respondents was 150 participants out of 156 participants so, the response rate was 96.1%.



### **3.12 Data collection**

Data have been collected by the researcher. A consent form was attached to each questionnaire (Annex 2). Time estimation for filling each questionnaire is about 15 minutes.

### **3.13 Pilot Study**

A pilot study was conducted at 10% from the study sample (15 eligible female nurse) before starting the actual data collection as a pretest to point out the weaknesses in wording, translation into Arabic, predict response rate, determine the real time needed to fill the questionnaire and identify areas of vagueness and to test the reliability, practicality, and suitability of the questionnaire, that modifications was done accordingly. Because of limited number of the study sample the pilot participants were add to the study sample.

### **3.14 Data entry and statistical analysis**

The researcher used Statistical Package for Social Science (SPSS) program version 22 for data entry and analysis. The first stage of data entry was through constructing the entry base and coding of variables, followed by actual data entry. Data entry was performed at the time of data collection. At the analysis stage, data cleaning and data management for the variables of interest were performed. The management of data depended upon scientific literature, merging and discretizing continuous variables into categories with minimal loss of information. Descriptive analysis including figures, frequency tables, and cross tabulation were used to describe the main features of the data. t-test and ANOVA tests were used to was used to show if there are statistically significant differences in the breastfeeding women with regard to socio-demographic factors.

### 3.15 Scientific rigor

#### 3.15.1 Validity of the research

For the purpose of ensuring validity, the researcher submitted the questionnaire to experts in the field to judge face and content validity. Their suggestions were considered.

#### 3.15.2 Internal consistency

To check internal consistency, the researcher calculated the correlation between each statement and the corresponding field. (Tables 3.2) present the correlation coefficient for each paragraph of a field and the total of the corresponding field. The p-values (Sig.) are less than 0.05, so the correlation coefficients of all paragraphs are significant at  $\alpha = 0.05$ , so it can be said that all paragraphs of each field are consistent and valid to measure what it was set for.

### Part A: Characteristics of Knowledge

**Table (3.2) A: Correlation coefficient of each paragraph of “knowledge”**

No	Paragraph	Correlation Coefficient	P-Value
1	Taking drug during breastfeeding is safe.	0.821	*0.000
2	Effect some drugs on amount of milk to baby.	0.520	*0.000
3	Almost all drugs transfer into breast milk and this may carry a risk to breastfeeding.	0.632	*0.000
4	should be stopped some drugs during breastfeeding.	0.333	*0.036
5	Antiemetic drugs such as pramin increase amount of milk to baby.	0.375	*0.017
6	Increase benefits of breastfeeding continue if mothers avoid using drugs.	0.325	*0.040
7	Prolactin affected by some drugs use during breastfeeding.	0.412	*0.012
8	Drugs can affect milk secretion or composition by affecting on mammary gland development and milk secretion.	0.374	*0.017
9	Antihistamines are considered to be safe.	0.680	*0.000
10	Anticonvulsants are considered unsafe during breastfeeding.	0.344	*0.032
11	Anticoagulants such as heparin is considered and do not cross into breast milk.	0.700	*0.000
12	Antibiotics tetracyclines effect on bone growth.	0.682	*0.000
13	Avoid take aspirin during breastfeeding due to risk of Reye's syndrome.	0.580	*0.000
14	You have an access to resources about drug safety on breastfeeding.	0.422	*0.010
15	Analgesics such as Acamol have effect on breast feeding.	0.500	*0.000
16	Trufen effect on taste milk to baby	0.610	*0.000

17	Some mothers are needed to use drugs during breastfeeding.	0.510	*0.000
18	Transfer some drugs from maternal plasma to milk	0.313	*0.049
19	have good information about drugs affecting breastfeeding.	0.355	*0.025

**Table (3.2) B: Correlation coefficient of each paragraph of “knowledge”**

## **Part B: Characteristics of Attitudes**

**Table (3.3): Correlation coefficient of each paragraph of “Attitudes”**

No	Paragraph	Correlation Coefficient	P-Value
1	You think Workload pressure prohibit me to give information about drug affecting breastfeeding.	0.349	*0.027
2	You think the effect of drugs on breastfeeding is problem for baby.	0.571	*0.000
3	Health Education is the best way to decrease harmful effects of drugs on breastfeeding.	0.500	*0.001
4	Nursing counseling is the best way to decrease harmful effects of drugs on breastfeeding.	0.552	*0.000
5	Women should be encouraged to avoid over the counter drug during breastfeeding.	0.521	*0.001
6	Drugs affecting breastfeeding should be included in the clinics guide.	0.601	*0.000
7	Service provided from health education and nursing counseling is adequate to women about drug affecting breastfeeding.	0.518	*0.001
8	You think there is a relationship between income of family and drug use during breastfeeding.	0.432	*0.005
9	You think there is a relationship to mother's educational level about drugs.	0.576	*0.000
10	You think there is a relationship between number of birth and attitudes about drugs effect of breastfeeding.	0.496	*0.001
11	Would you like to conduct training courses during work about drug affecting breastfeeding	0.570	*0.000

### **3.16 Reliability of the instrument**

Reliability of an instrument is the degree of consistency with which it measures the attribute it is supposed to be measuring. Table 3.4 shows the values of Cronbach's Alpha for each field of the questionnaire and the entire questionnaire. For the fields, values of Cronbach's Alpha were in the range from 0.681 and 0.722. Cronbach's alpha equals 0.701 for the entire questionnaire, which indicates good reliability of the entire questionnaire.

**Table (3.4): Cronbach's Alpha for reliability**

No	Field	Cronbach's Alpha
1	Knowledge	0.681
2	Attitudes	0.722
All independent variables together		0.701

### **3.17 limitations of the study**

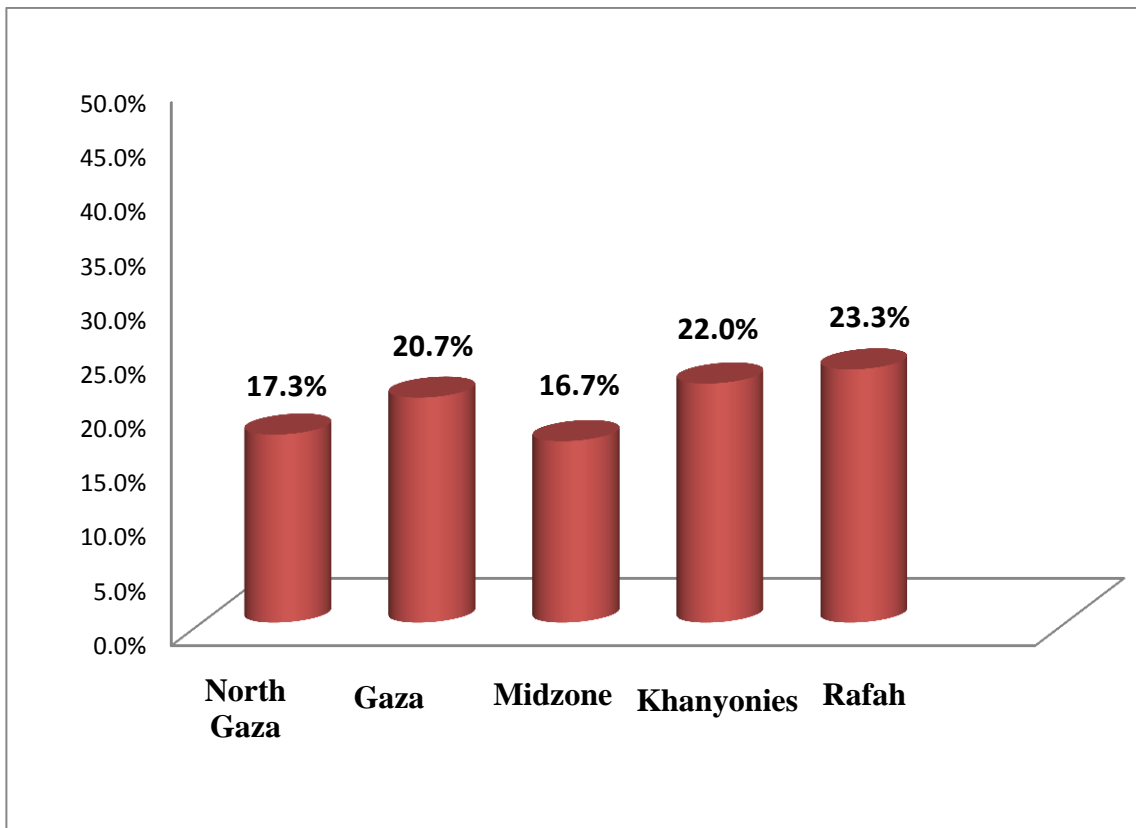
- Time limitation because of the nature of researcher work and life condition.
- Financial costs.
- Transportation problems.
- Frequent electricity cut off.
- Since the study was conducted in health centers, female nurses who absent or did not come to the health center may not include.
- There were limitations of literature regarding the knowledge and attitudes of nurses toward drug affecting breastfeeding.

## Chapter 4

### Results and Discussion

#### 4.1 Introduction

In this chapter, the researcher presented the results of the study. Descriptive analysis of demographic characteristics of participants was illustrated and discussed with related literature and previous studies. In addition, results of different variables and dimensions were identified, and the differences between selected variables and correlations were explored. To obtain the results, the researcher used SPSS program (version 22). Statistical procedures were used included frequencies, percentage, Pearson correlation test, One way ANOVA, and simple linear regression. The results are illustrated below.



**Figure (4.1): Distribution of the study participants according to residency**

Figure (4.1) shows the study participants consisted of 150 nurses working in governmental Primary Health Care Centers (PHCCs) in Gaza Strip (GS). The highest percentage were living in Rafah governorate 23.3%, followed by Khanyounis 22.0%, then Gaza 20.7%, North Gaza 17.3%, and the Middle governorate 16.7%.

**Table (4.1): Distribution of study participants according to socio demographic characteristics (n= 150)**

Variable	Number (N)	Percentage (%)
Age		
30 years and below	10	6.7
31 - 40 years	75	50.0
41 years and above	65	43.3
Total	150	100.0
Qualification		
Master degree	12	8.0
Bachelor	60	40.0
Diploma 3 years	30	20.0
Diploma 2 years	48	32.0
Total	150	100.0
Experience		
10 years and less	28	18.7
11 – 20 years	84	56.0
21 years and more	38	25.3
Total	150	100.0
Clinic address		
Gaza	42	28.0
Khan Younis	36	24.0
Rafah	32	21.3
North Gaza	22	14.7
Midzone	18	12.0
Total	150	100.0
Had training course (T- test )		
No	130	86.7
Yes	20	13.3
Total	150	100.0

Table (4.1) shows that half of study participants (75) 50.0% aged between 31 – 40 years, followed by 65 (43.3%) aged 41 years and above, (60) 40.0% have bachelor degree and (12) 8.0% have master degree, more than half of them (84) 56.0% have an experience 11 – 20 years, and only (20) 13.3% had in-service training course. Concerning PHCCs address, 42 (28.0%) were from Gaza, (36) 24.0% from Khanyounis, (32) 21.3% from Rafah, (22) 14.7% from North Gaza, and (18) 12.0% from Midzone.

**Table (4.2) A: Knowledge of study participants about drugs affecting breast feeding (n= 150)**

No	Item	Yes		No		Rank
		N	%	N	%	
1.	Taking drug during breastfeeding is safe.	67	44.7	83	55.3	7
2.	Effect some drugs on amount of milk to baby.	32	21.3	118	78.7	13
3.	Almost all drugs transfer into breast milk and this may carry a risk to breastfeeding.	95	63.3	55	36.7	4
4.	Should be stopped some drugs during breastfeeding.	22	14.7	128	85.3	17
5.	Antiemetic drugs such as pramine increase amount of milk to baby.	103	68.7	47	31.3	2
6.	Increase benefits of breastfeeding continue if mothers avoid using drugs.	24	16.0	126	84.0	16
7.	Prolactin affected by some drugs use during breastfeeding.	18	12.0	132	88.0	19
8.	Drugs can affect milk secretion or composition by affecting on mammary gland development and milk secretion.	150	100.0	0	0	1
9.	Antihistamines are considered to be safe.	46	30.7	104	69.3	10

**Table (4.3) B: Knowledge of study participants about drugs affecting breast feeding (n= 150)**

No	Item	Yes		No		Rank
		N	%	N	%	
10.	Anticonvulsants are considered unsafe during breastfeeding.	46	30.7	104	69.3	10
11.	Anticoagulants such as heparin are considered safe and do not cross into breast milk.	28	18.7	122	81.3	15
12.	Antibiotics Tetracyclines effect on bone growth.	57	38.0	93	62.0	9
13.	Avoid take aspirin during breastfeeding due to risk of Reye's syndrome.	89	59.3	61	40.7	6
14.	You have an access to resources about drug safety on breastfeeding.	20	13.3	130	86.7	18
15.	Analgesics such as paracetamol have effect on breast feeding.	99	66.0	51	34.0	3
16.	Ibuprofen effect on taste milk to baby	36	24.0	114	76.0	12
17.	Some mothers are need to use drugs during breastfeeding.	31	20.7	119	79.3	14
18.	Transfer some drugs from maternal plasma to milk	95	63.3	55	36.7	4
19.	Have good information about drugs affecting breastfeeding.	67	44.7	83	55.3	7
Total		37.7		62.7		

Table (4.2) and Table (4.3) presents knowledge of nurses about drugs affecting breast feeding. High scores were obtained in some statements; 150 (100%) of nurses knew that drugs can affect milk secretion or composition by affecting on mammary gland development and milk secretion, 103 (68.7%) knew that antiemetic drugs such as pramine increase amount of milk to baby, and 99 (66%) of nurses knew that analgesics such as Acamol have an effect on breast feeding. Low scores were obtained in some statements; 18 (12%) of nurses knew that prolactin is affected by use of some drugs use during breastfeeding, and 20 (13.3%) of nurses knew that they have an access to resources about



drug safety on breastfeeding. In general, the results reflected that 37.7% of nurses were knowledgeable about drugs that affect breast feeding.

**Table (4.4) A: Attitudes of study participants toward drugs affecting breast feeding (n= 150)**

No.	Item	Disagree		Not sure		Agree		Rank
		N	%	N	%	N	%	
1.	Workload pressure prohibit me to give information about drug affecting breastfeeding.	33	22.0	19	12.7	98	65.3	9
2.	The effect of drugs on breastfeeding is problem for baby.	10	6.7	26	17.3	114	76.0	7
3.	Health Education is the best way to decrease harmful effects of drugs on breastfeeding.	0	0	2	1.3	148	98.7	1
4.	Nursing counseling is the best way to decrease harmful effects of drugs on breastfeeding.	9	6.0	19	12.7	122	81.3	6
5.	Women should be encouraged to avoid over the counter drug during breastfeeding.	1	0.7	4	2.7	145	96.7	2
6.	Drugs affecting breastfeeding should be included in the clinics guide.	1	0.7	5	3.3	144	96.0	3

**Table (4.5) B: Attitudes of study participants toward drugs affecting breast feeding (n= 150)**

No.	Item	Disagree		Not sure		Agree		Rank
		N	%	N	%	N	%	
7.	Service provided from health education and nursing counseling is adequate to women about drug affecting breastfeeding.	56	37.3	47	31.3	47	31.3	11
8.	There is a relationship between income of family and drug use during breastfeeding.	94	62.7	0	0	56	37.3	10
9.	There is a relationship to mother's educational level about drugs.	26	17.3	0	0	124	82.7	5
10.	There is a relationship between number of birth and attitudes about drugs effect of breastfeeding.	47	31.3	0	0	103	68.7	8
11.	Would you like to conduct training courses during work about drug affecting breastfeeding	3	2.0	5	3.3	142	94.7	4
Overall average		<b>16.9</b>		<b>7.6</b>		<b>75.3</b>		

Table (4.3) & Table (4.4) presents attitudes of nurses about drugs affecting breast feeding. High scores were obtained in some statements; (148) 98.7% stated that health education is the best way to decrease harmful effects of drugs on breastfeeding, followed by (145) 96.7% mentioned that women should be encouraged to avoid over the counter drugs during breastfeeding, and (144) 96.0% stated that drugs affecting breastfeeding should be included in the clinics guide. On the other hand, low scores indicated that (47) 31.3% mentioned that service provided from health education and nursing counseling is adequate to women about drug affecting breastfeeding, followed by (56) 37.3% thought that there is a relationship between income of family and drug use during breastfeeding. In general, the results revealed 75.3% of nurses have positive attitudes toward drugs affecting breast feeding.

**Table (4.6): Differences in knowledge about drugs affecting breast feeding and selected variables (= 150)**

Variable	N	%	SD	F	P value
Age					
30 years and below	10	38.4	8.2	0.411	0.664
31 - 40 years	75	34.3	13.0		
41 years and above	65	34.9	13.9		
Place of residency					
North Gaza	26	33.2	12.4	1.791	0.134
Gaza	31	40.0	12.4		
Midzone	25	35.1	14.4		
Khanyounis	33	34.1	12.4		
Rafah	35	32.0	13.4		
Qualification					
Diploma 2 years	48	35.3	13.6	0.131	0.942
Diplom3 years	30	33.8	14.8		
BSN	60	34.7	12.2		
Master	12	36.4	12.3		
Years of experience					
10 years and less	28	35.9	10.5	0.106	0.899
11 – 20 years	84	34.5	13.7		
21 years and more	38	34.7	13.7		
Address of clinic					
North Gaza	22	33.7	12.5	2.210	0.071
Gaza	42	38.9	14.1		
Midzone	18	32.7	11.1		
Khanyounis	36	35.8	12.8		
Rafah	32	30.4	12.5		
Had training course (t- test)					
No	130	13.4	86.7	0.050	0.960
Yes	20	11.2	13.3		

Table (4.6) shows that there were statistically insignificant differences in knowledge about drugs affecting breast feeding related to the following variables: nurses' age, place of residency, qualification of the nurse, years of experience, address of clinic, and in-service training courses.

**Table (4.7) A: Differences in attitudes about drugs affecting breast feeding and**

Variable	N	%	SD	F	P value
Age					
30 years and below	10	80.9	10.0	0.872	0.420
31 - 40 years	75	75.2	13.3		
41 years and above	65	74.5	15.5		
Place of residency					
North Gaza	26	12.5	69.5	4.270	0.003 *
Gaza	31	15.6	75.9		
Midzone	25	17.3	69.4		
Khanyounis	33	9.7	81.5		
Rafah	35	12.3	77.4		
Qualification					
Diploma 2 years	48	14.4	73.8	1.029	0.382
Diplom3 years	30	17.7	75.7		
BSN	60	12.1	77.2		
Master	12	13.4	70.4		

\* Significant  $P \leq 0.05$

**Table (4.7) B: Differences in attitudes about drugs affecting breast feeding and selected variables (n= 150)**

Variable	N	%	SD	F	P value
Years of experience					
10 years and less	28	80.5	10.4	2.343	0.100
11 – 20 years	84	74.1	13.7		
21 years and more	38	74.1	16.8		
Address of clinic					
North Gaza	22	66.9	12.0	4.434	0.002 *
Gaza	42	75.7	14.8		
Midzone	18	69.6	18.9		
Khanyounis	36	80.3	10.0		
Rafah	32	78.1	14.1		
Had training course (t-test)					
No	130	74.6	14.7	2.524	0.114
Yes	20	80.0	8.1		

\* Significant  $P \leq 0.05$

Table (4.6) & Table (4.7) show that there were statistically insignificant differences in attitudes about drugs affecting breast feeding related to the following variables: nurses' age, qualification of the nurse, years of experience, and in-service training courses. In addition, the results indicated statistically significant differences at 0.05 in attitudes toward drugs affecting breast feeding related to place of residency, and address of clinic.

**Table (4.8): Correlation between knowledge and attitudes**

Domain	Attitude	
	r	P-value
Knowledge	0.236	0.004 *

\* Significant  $P \leq 0.05$

Table (4.8) showed statistically significant positive relationship at p- value  $\leq 0.05$  between knowledge and attitudes of nurses about drugs affecting breast feeding.

**Table (4.9): Effect of knowledge on attitude (Simple linear regressions)**

	<b>R</b>	<b>R<sup>2</sup></b>	<b>Adjusted R<sup>2</sup></b>	<b>SE</b>	<b>F</b>	<b>P-value</b>
<b>Model</b>	0.236	.056	.049	2.1	8.714	0.004 *

**Table (4.10): Simple linear regression model and equation to test effect of knowledge on attitude among participants**

	<b>B</b>	<b>SE</b>	<b>Beta</b>	<b>t</b>	<b>P-value</b>	<b>95% CI</b>	
						<b>Lower</b>	<b>Upper</b>
<b>Constant</b>	25.204	2.100		12.005	.000	29.3284	32.3676
<b>Attitude</b>	.217	.074	.236	2.952	.004	-3.469	1.687

The results showed that there was a statistically significant positive relationship between knowledge and attitudes of nurses toward drugs affecting breastfeeding.

## **4.2 Discussion**

### **4.2.1 Sociodemographic characteristics of study participants**

The results indicated that half of the nurses who participated in the study aged between 31 – 40 years, less than half of them have bachelor degree, more than half of them have an experience between 11 – 20 years, and the majority of them did not attend any postgraduate training.

These results indicated that half of the nurses were from the middle age with long years of experience working in health field, and that would be reflected in their knowledge and attitudes about drugs affecting breastfeeding.

### **4.2.2 Knowledge and attitudes of nurses about drugs affecting breast feeding**

The results showed that all the nurses knew that drugs can affect milk secretion or composition, and more than two-thirds of nurses knew that analgesics such as paracetamol have an effect on breast feeding, while the minority of nurses knew that prolactin is affected by some drugs that are used during breastfeeding, and few nurses knew that they have an access to resources about drug safety on breastfeeding. In general, the results

reflected that more than one-third of nurses were inadequate knowledge about drugs that affect breast feeding.

Concerning attitudes, the results showed that the vast majority of nurses stated that health education is the best way to decrease harmful effects of drugs on breastfeeding, the vast majority of nurses mentioned that women should be encouraged to avoid over the counter drugs during breastfeeding, also, the vast majority of nurses stated that drugs affecting breastfeeding should be included in the clinics guide, while only one-third of nurses mentioned that service provided from health education and nursing counseling is adequate to women about drug affecting breastfeeding, and more than one-third of them thought that there was a relationship between family income and drug use during breastfeeding. In general, the results reflected that three-quarters of nurses have positive attitudes toward drugs affecting breast feeding.

These results have much agreements with the study results of Safeera and Narmin (2011) found that health professionals have poor knowledge, as well as positive attitudes that are mostly guided by personal experience towards medication use in breastfeeding women. And another study conducted in Jordan revealed that nurses have low knowledge about drugs affecting breast feeding (Nour et al., 2017).

Nurses are very influential regarding breastfeeding success rates both in the initiation of breastfeeding and duration. Nurses' knowledge regarding breastfeeding and their attitudes about breastfeeding are predictive of actual supportive behavior. However, nurses' knowledge continues to be deficient specifically in areas such as lactation physiology and glucose feedings (Radzyninski and Callister, 2015).

Healthcare providers' knowledge about drugs affecting breastfeeding would affect their advice to their clients whether to stop medication or to stop breastfeeding during medication course. In this regard, some healthcare providers have been found to be

supportive of medication use during breastfeeding, others have unnecessarily advised women to cease therapy whilst breastfeeding (Amir and Pirotta 2010; Jayawickrama and Amir 2010; Lee et al., 2000), or to stop breastfeeding temporarily or permanently as the risks associated with breastfeeding cessation were viewed to outweigh the benefits and risks of medication use (Jones & Brown, 2003).

#### **4.2.3 Differences in knowledge and attitudes about drugs affecting breast feeding related to selected variables**

The results showed that there were statistically insignificant differences in knowledge about drugs affecting breast feeding related to age of the nurse, place of residency, qualification, years of experience, address of clinic, and attending in-service training courses. These results revealed that the sociodemographic did not contribute to changes in level of knowledge among nurses.

The results also showed that there were statistically insignificant differences in attitudes about drugs affecting breast feeding related to age of the nurse, qualification, years of experience, and in-service training courses, while differences in attitudes were significant related to place of residency and address of clinic.

These results indicated that sociodemographic characteristics did not make considerable differences in nurses' knowledge and attitudes about drugs effect on breastfeeding. These results could be attributed to the fact that many of the nurses working in primary health care for long years and gained similar experiences through day-to-day work, also, they follow same protocols in their work, which would lead to similarities in their knowledge and attitudes about different aspects of their.

In my opinion, many healthcare providers reflect their knowledge about drug use during breastfeeding, and that would be conveyed in their interaction and instructions were given to their clients, personal experience on their attitudes.



Many breastfeeding women require and regularly take medicines, especially those available over-the-counter, and the safe use of these is dependent on the advice provided by health professionals. It is worth to say that there was a limited available literature regarding knowledge and attitudes about drugs affecting breastfeeding, and the available literature identified that healthcare providers have poor knowledge, but positive attitudes, and variable practices that are mostly guided by personal experience, and healthcare providers tend to make decisions about the use of a medicine whilst breastfeeding based on the potential 'risk' that it poses to the infant in terms of possible adverse reactions, rather than its compatibility with breast milk (Hussainy & Dermele, 2011).

## **Chapter 5**

### **Conclusion and Recommendations**

#### **5.1 Conclusion**

This study is important to show knowledge and attitudes of nurses toward drug affecting breastfeeding. Moreover, this study leads and guides the further studies on the effect of drug affecting at the later stages on the breastfeeding continuation. But in this study the nurses that there is lack of information and inadequate knowledge toward drug affecting breastfeeding. Despite that the nurses' play role in counseling and has direct communication with breastfeeding women, so, she should be knowledgeable and aware of a drug that affects breastfeeding because the mother sometimes needs those available without a prescription, which is ultimately influenced by their knowledge, attitudes, However, there is an absence of high-quality evidence on the safety of drug taken during breastfeeding, which naturally would hinder health professionals.

#### **5.2 Recommendations**

Based on the result of this study, it is recommended that;

##### **5.2.1 Ministry of health**

1. Provide regular training programs toward drug affecting breastfeeding should be conducted for all primary health care provider.
2. The Ministry of Health should pay more supervision and added drug affecting breastfeeding in the protocols.
3. Review and activate job descriptions to reduce workloads and any non-nursing duties.

### **5.2.2. Recommendations for health care providers**

1. Nurses' should be encouraged to ready access to reliable, up-to-date information which is useful and nurses continuing courses programs concerning drug affecting breastfeeding are also highly recommended
2. Health care providers should be given to providing information for breastfeeding women about drug affecting breastfeeding and safe use to it.
3. More awareness update information about drug affecting breastfeeding.

### **5.2.3 Recommendation for future researches**

1. Studying Knowledge, Attitudes of other health care provider such as (doctors, pharmacy) toward drug affecting breastfeeding in primary health care.
2. Comparison of Knowledge, Attitudes of nurses toward drug affecting breastfeeding in primary health care in Governmental and UNRWA Clinics.
3. Studying knowledge and attitudes of nurses toward drug affecting breastfeeding health care providers in hospital.

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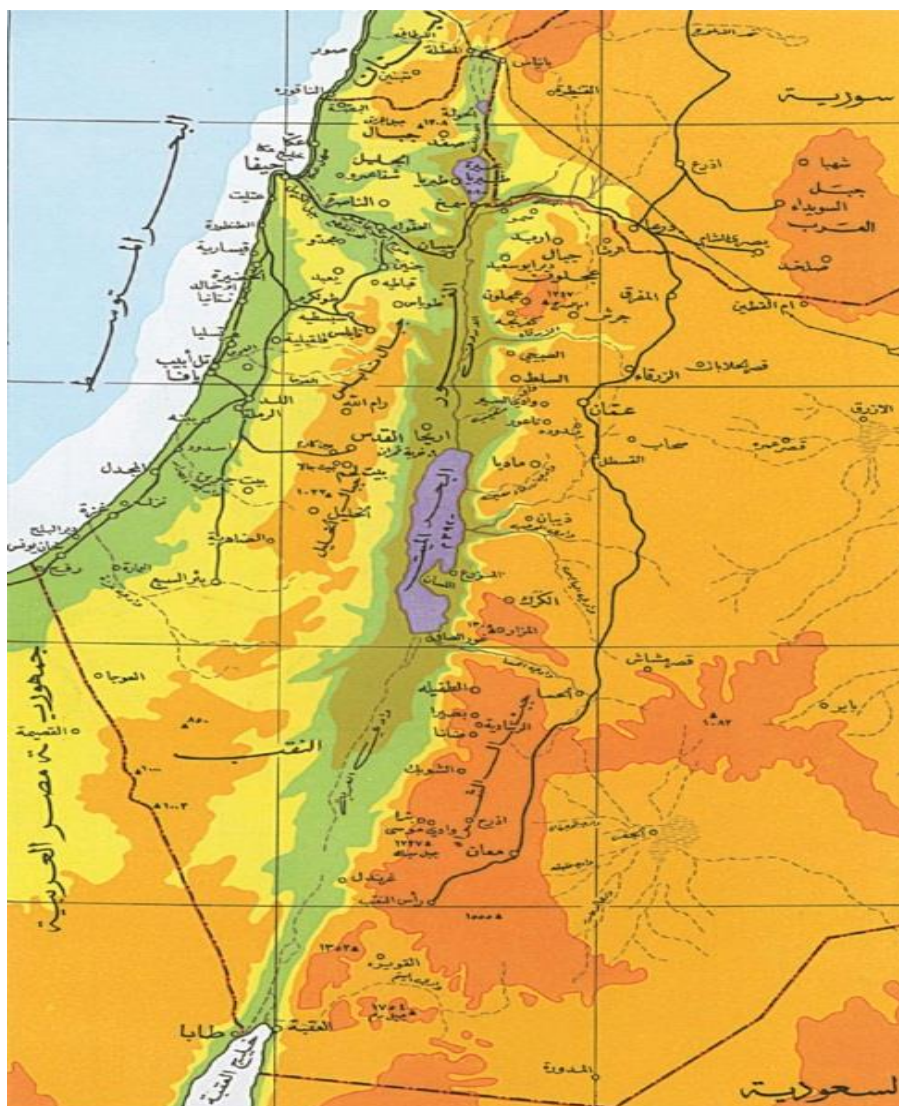
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## Annex (1): Map of historical Palestine



عزیزتی المشاركة

یسعدنی مشارکتک الفاعلة فی بحث بعنوان

**Knowledge and Attitudes of Nurses toward Drug Affecting Breastfeeding  
on Governmental Primary Health Clinics**

**(معرفة واتجاهات الممرضات حول الادوية التي تؤثر على الرضاعة الطبيعية)**

انا الطالبة/ فاتن زياد ماضي ادرس في جامعة القدس – ابوديس، إن هذا البحث يشكل جزء ضروري من دراستي للحصول على درجة الماجستير في المهن الصحية مسار صحة الام والطفل – كلية المهن الصحية بجامعة القدس (أبوديس).

وقد تم اختياركم ضمن مجموعة العاملين في عيادات الرعاية الصحية الأولية للإجابة على العبارات الواردة فيها.

إذا كنت توافقي على المشاركة في هذه الدراسة، يرجى التكرم بقراءة العبارات التالية بدقة والإجابة عنها بموضوعية لما في ذلك من أثر كبير على صحة النتائج والنصائح التي سوف يتوصل إليها الباحث. مع التأكيد بأن هذه البيانات سوف تستخدم لأغراض البحث العلمي فقط، وسيتم التعامل معها بسرية تامة.

ملاحظة / الوقت اللازم لتعبئة الاستبانة كاملة لا يستغرق أكثر من 15 دقيقة.

أشكركم على حسن تعاونكم معي

الباحثة: فاتن زياد ماضي

0597404206



## Questionnaire

### First part: The following questions about sociodemographic and work related:

1. Age: ..... years
2. Place of residency: ☐ North Gaza ☐ Gaza ☐ Midzone ☐ Khanyounis ☐  
Rafah.
3. Academic qualification: Diploma 2 years Diploma 3 years Bachelor  
degree Master degree PhD
4. Years of experience: .....
5. Name of clinic: .....
6. Have you ever received any lecture or course on drug affecting  
breastfeeding?  
☐ Yes ☐ No

If yes, please specify according to the table below

Course	Organization

**Second part: The following questions about (knowledge)**

<b>No.</b>	<b>Items</b>	<b>Yes</b>	<b>No</b>
1.	Taking drug during breastfeeding is safe.		
2.	Effect some drugs on amount of milk to baby.		
3.	Almost all drugs transfer into breast milk and this may carry a risk to breastfeeding.		
4.	Should be stopped some drugs during breastfeeding.		
5.	Antiemetic drugs such as pramin increase amount of milk to baby.		
6.	Increase benefits of breastfeeding continue if mothers avoid using drugs.		
7.	Prolactin affected by some drugs use during breastfeeding.		
8.	Drugs can affect milk secretion or composition by affecting on mammary gland development and milk secretion.		
9.	Antihistamines are considered to be safe.		
10.	Anticonvulsants are considered unsafe during breastfeeding.		
11.	Anticoagulants such as heparin is considered safe and do not cross into breast milk.		
12.	Antibiotics tetracyclines effect on bone growth.		
13.	Avoid take aspirin during breastfeeding due to risk of Reye's syndrome.		
14.	Have an access to resources about drug safety on breastfeeding.		
15.	Analgesics such as Acamol have effect on breast feeding.		
16.	Ibuprofen effect on taste milk to baby		
17.	Some mothers are need to use drugs during breastfeeding.		
18.	Transfer some drugs from maternal plasma to milk		
19.	Have good information about drugs affecting breastfeeding.		

**Third part: The following questions about (Attitudes)**

<b>No.</b>	<b>Items</b>	<b>Agree</b>	<b>Not sure</b>	<b>disagree</b>
<b>1.</b>	Workload pressure prohibit me to give information about drug affecting breastfeeding.			
<b>2.</b>	Effect of drugs on breastfeeding is problem for baby.			
<b>3.</b>	Health Education is the best way to decrease harmful effects of drugs on breastfeeding.			
<b>4.</b>	Nursing counseling is the best way to decrease harmful effects of drugs on breastfeeding.			
<b>5.</b>	Women should be encouraged to avoid over the counter drug during breastfeeding.			
<b>6.</b>	Drugs affecting breastfeeding should be included in the clinics guide.			
<b>7.</b>	Service provided from health education and nursing counseling is adequate to women about drug affecting breastfeeding.			
<b>8.</b>	There is a relationship between income of family and drug use during breastfeeding.			
<b>9.</b>	There is a relationship to mother's educational level about drugs.			
<b>10.</b>	There is a relationship between number of birth and attitudes about drugs effect of breastfeeding.			

**Thank you**

### Annex (3): Arabic questionnaire

عزيزتي المشاركة

يسعدني مشاركتك الفاعلة في بحث بعنوان

## Knowledge and Attitudes of Nurses toward Drug Affecting Breastfeeding on Governmental Primary Health Clinics

**(معرفة واتجاهات الممرضات حول الادوية التي تؤثر على الرضاعة الطبيعية)**

انا الطالبة/ فاتن زياد ماضي ادرس في جامعة القدس – ابوديس، إن هذه الاستبانة تشكل جزء ضروري من دراستي للحصول على درجة الماجستير في المهن الصحية مسار صحة الام والطفل- كلية المهن الصحية بجامعة القدس (أبوديس) وقد تم اختياركم ضمن مجموعة العاملين في عيادات الرعاية الصحية الأولية للإجابة على العبارات الواردة فيها.

إذا كنت توافقي على المشاركة في هذه الدراسة، يرجى التكرم بقراءة العبارات التالية بدقة والإجابة عنها بموضوعية لما في ذلك من أثر كبير على صحة النتائج والنصائح التي سوف يتوصل إليها الباحث. مع التأكيد بأن هذه البيانات سوف تستخدم لأغراض البحث العلمي فقط، وسيتم التعامل معها بسرية تامة.

ملاحظة / الوقت اللازم لتعبئة الاستبانة كاملة لا يستغرق أكثر من 15 دقيقة.

أشكركم على حسن تعاونكم معي

الباحثة  
فاتن زياد ماضي

[0597404206](tel:0597404206)

## الاستبانة

### الجزء الاول : المعلومات الشخصية:

1. العمر:
2. مكان السكن: ☐ شمال غزة ☐ غزة ☐ الوسطى ☐ خان يونس ☐ رفح.
3. المؤهل العلمي: ☐ دبلوم سنتين ☐ دبلوم 3 سنوات ☐ بكالوريوس ☐ ماجستير ☐ دكتوراه .
4. سنوات الخبرة: .....
5. اسم العيادة: .....
6. هل سبق لك أن تلقيت أي محاضرة أو دورة عن الأدوية التي تؤثر على الرضاعة الطبيعية؟

☐ نعم ☐ لا

إذا كانت الإجابة بنعم، يرجى تحديدها وفقًا للجدول أدناه:

الدورة	المؤسسة

**الجزء الثاني: العناصر التالية حول ( معرفة الممرضات حول الأدوية التي تؤثر على الرضاعة الطبيعية):**

الرقم	العنصر	نعم	لا
1	العديد من الأدوية آمنة أثناء الرضاعة الطبيعية		
2	تؤثر بعض الأدوية على كمية الحليب للرضيع.		
3	جميع الأدوية تنتقل إلى حليب الثدي وهذا قد يحمل خطرا على الرضيع.		
4	يجب إيقاف بعض الأدوية أثناء الرضاعة الطبيعية.		
5	تزيد الأدوية المضادة للتقيؤ مثل البرامين من كمية الحليب للرضيع.		
6	تزيد فوائد الرضاعة الطبيعية إذا تجنبنا الأم استخدام الادوية.		
7	هرمون الحليب يتأثر ببعض الأدوية المستخدمة أثناء الرضاعة.		
8	يمكن أن تؤثر الأدوية على إفراز الحليب أو تركيبه من خلال التأثير على نمو الغدة الثديية وإفراز الحليب.		
9	الأدوية المضادة للحساسية آمنة أثناء الرضاعة.		
10	ادوية التشنج غير آمنة أثناء الرضاعة الطبيعية.		
11	الأدوية مانعة التجلط مثل: الهيبارين آمنة ولا تؤثر على حليب الثدي.		
12	يؤثر المضاد الحيوي التتراسيكلين على نمو العظام عند الرضيع.		
13	تجنب تناول الأسبرين أثناء الرضاعة لأنه يسبب Rye's syndrome للرضيع.		
14	صعب الوصول إلى المراجع حول الادوية المؤثرة على الرضاعة الطبيعية.		
15	المسكنات مثل الباراسيتامول آمنة أثناء الرضاعة .		
16	يؤثر الأيبوبروفين على طعم الحليب للرضيع .		
17	تحتاج بعض الأمهات إلى استخدام الأدوية أثناء الرضاعة الطبيعية.		
18	يتم نقل بعض الأدوية من بلازما الأم إلى الحليب .		
19	لدي معلومات جيدة عن الأدوية التي تؤثر على الرضاعة الطبيعية.		

**الجزء الثاني:العناصر التالية حول ( اتجاهات الممرضات حول الأدوية التي تؤثر على الرضاعة الطبيعية):**


الرقم	العنصر	أوافق	لست متأكد	غير موافق
1.	ضغط العمل يؤثر من إعطاء معلومات (للأم) عن الأدوية التي تؤثر على الرضاعة الطبيعية.			
2.	تأثير الأدوية على الرضاعة الطبيعية يمثل مشكلة بالنسبة لحليب الأم.			
3.	التثقيف الصحي هو أفضل وسيلة لتقليل استخدام الأدوية التي تؤثر على حليب الأم			
4.	الاستشارة التمريضية هي أفضل وسيلة لتقليل استخدام الادوية أثناء الرضاعة الطبيعية.			
5.	تشجيع النساء على تجنب استخدام الأدوية التي تؤثر على الرضاعة الطبيعية			
6.	ارغب في تضمين الأدوية التي تؤثر على الرضاعة الطبيعية في دليل العيادات.			
7.	الخدمة المقدمة من التثقيف الصحي والاستشارة التمريضية كافية للنساء حول الأدوية التي تؤثر على الرضاعة الطبيعية.			
8.	هناك علاقة بين دخل الأسرة وكثرة استخدام الدواء أثناء الرضاعة الطبيعية.			
9.	تعتقد هناك علاقة للمستوي التعليمي للأم حول الأدوية المؤثرة على الرضاعة الطبيعية.			
10.	هناك علاقة بين عدد الولادات للأم واتجاهاتها حول الأدوية المؤثرة على الرضاعة الطبيعية.			
11.	ارغب في إجراء دورات تدريبية أثناء العمل حول الأدوية التي تؤثر على الرضاعة الطبيعية.			

شكرا لحسن تعاونكم

#### Annex(4): Sample size calculation

You will need to measure **130** or more samples.

Confidence Level:	<input type="text" value="95%"/>	
Confidence Interval:	<input type="text" value="5%"/>	
Population Proportion:	<input type="text" value="50%"/>	Use 50% if not sure
Population Size:	<input type="text" value="194"/>	Leave blank if unlimited population size.

**Calculate** 



**Annex (5): Approval from Al-Quds University**

Al Quds University  
Faculty of Health Professions  
Nursing Dept. - Gaza

جامعة القدس  
كلية المهن الصحية  
مديرية التمريض - غزة

التاريخ: 2018/2/25

حضرة الدكتور / رامي العبادلة  
مدير عام تنمية القوى البشرية - وزارة الصحة

تحية طيبة وبعد،،،

الموضوع: مساعدة الطالبة فائق زياد ماضي

نشكر لكم دعمكم الدائم لمسيرة العلم والتعليم نود اعلامكم بأن الطالب المذكور أعلاه يقوم بعمل بحث كمتطلب للحصول على درجة الماجستير في التمريض - تخصص تمريض صحة الأم والطفل بعنوان:

**"Knowledge and Attitudes of Nurses toward Drug Affecting Breastfeeding in Governmental Primary Health Clinics"**

وعليه نرجو من سيادتكم التكرم بالموافقة على تسهيل مهمة الطالبة في إنجاز هذا البحث حيث أن عينة الدراسة هي من فئة مزودي الخدمات الصحية العاملين في عيادات الرعاية الصحية الأولية بوزارة الصحة.

وتفضلوا بقبول وافر الاحترام والتقدير

25/2/2018  
د. حمزة محمد عبد الجواد

استاذ مساعد في علوم التمريض  
منسق برامج ماجستير التمريض بغزة  
كلية المهن الصحية - جامعة القدس  
hamjawad1@gmail.com  
تلفاكس: +972 8 2644220  
خوي: +972 599 852755

فائرة التمريض  
Nursing Department

Tel: 08 2644210+08 2644220  
Tel. Fax: 08 2644220

تلفون: 08 2644210+08 2644220  
تلفاكس: 082644220

## Annex(6): Approval from Helsinki Committee



المجلس الفلسطيني للبحث الصحي  
Palestinian Health Research Council

تعزيز النظام الصحي الفلسطيني من خلال مأسسة استخدام المعلومات البحثية في صنع القرار  
Developing the Palestinian health system through institutionalizing the use of information in decision making

### Helsinki Committee For Ethical Approval

**Date:** 05/02/2018 **Number:** PHRC/HC/329/18

**Name:** FATEN Z. MADI **الاسم:**

We would like to inform you that the committee had discussed the proposal of your study about:

نفيدكم علماً بأن اللجنة قد ناقشت مقترح دراستكم حول:

**Knowledge and Attitudes of Nurses toward Drug Affecting Breastfeeding on Governmental Primary Health Clinics**

The committee has decided to approve the above mentioned research. Approval number PHRC/HC/329/18 in its meeting on 05/02/2018

و قد قررت الموافقة على البحث المذكور عاليه بالرقم والتاريخ المذكوران عاليه

**Signature**

**Member** 

**Member** 

**Chairman** 

**Genral Conditions:-**

1. Valid for 2 years from the date of approval.
2. It is necessary to notify the committee of any change in the approved study protocol.
3. The committee appreciates receiving a copy of your final research when completed.

**Specific Conditions:-**

**E-Mail:** pal.phrc@gmail.com

**Gaza - Palestine** غزة - فلسطين  
شارع النصر - مفترق العيون

## Annex (7): Approval from MOH

State of Palestine  
Ministry of Health



دولة فلسطين  
وزارة الصحة

التاريخ: 28/02/2018  
رقم المراسلة: 197915

السيد : رامي عيد سليمان العبداله المحترم

مدير عام بالوزارة / الإدارة العامة لتنمية القوى البشرية - /وزارة الصحة

السلام عليكم

الموضوع / تسهيل مهمة الباحث / فائق ماضي

التفاصيل //

بخصوص الموضوع أعلاه، يرجى تسهيل مهمة الباحث / فائق ماضي  
الملتحق ببرنامج ماجستير الصحة العامة - مسار صحة الأم والطفل - جامعة القدس أبوديس في إجراء بحث بعنوان :-  
"معرفة واتجاهات الممرضات حول الادوية التي تؤثر على الرضاعة الطبيعية"  
حيث الباحثة بحاجة لتعبئة استبانة من عدد من الممرضات العاملات في مراكز الرعاية الأولية في محافظات قطاع غزة، بما لا يتعارض مع مصلحة العمل وضمن أخلاقيات البحث العلمي، ودون تحمل الوزارة أي أعباء أو مسؤولية.  
وتفضلوا بقبول التحية والتقدير،  
ملاحظة / تسهيل المهمة الخاص بالدراسة أعلاه صالح لمدة 5 أشهر من تاريخه.

**محمد ابراهيم محمد السرساوي**  
مدير دائرة/الإدارة العامة لتنمية القوى البشرية -



**التحويلات**

<p>إجراءكم بالخصوص (28/02/2018)</p>	<p>← رامي عيد سليمان العبداله (مدير عام بالوزارة)</p>	<p>■ محمد ابراهيم محمد السرساوي (مدير دائرة)</p>
<p>إجراءكم بالخصوص (28/02/2018)</p>	<p>← ماهر محمود عبدالهادي شامية (مدير عام بالوزارة)</p>	<p>■ رامي عيد سليمان العبداله (مدير عام بالوزارة)</p>
<p>لعمل اللازم (01/03/2018)</p>	<p>← مها احمد شمس العمامي (مدير دائرة)</p>	<p>■ ماهر محمود عبدالهادي شامية (مدير عام بالوزارة)</p>
<p>لعمل اللازم (01/03/2018)</p>	<p>← جهاد محمد محمد مطر (مدير دائرة)</p>	<p>■ ماهر محمود عبدالهادي شامية (مدير عام بالوزارة)</p>

الأخ / جمال أبو حمزة  
برحمة تسهيل مهمة  
الطالبة الباحثة  
سهريل عيسى  
للدفع

الأخوة / أشرف البرقي  
الأخوة / المرحلات  
سهريل عيسى  
للدفع

الأخوة / ماهر  
للأخ

26/3  
20/18

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31218

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غزة

## Annex(8):Arabic Abstract

### عنوان الدراسة: معرفة واتجاهات الممرضات حول الادوية التي تؤثر على الرضاعة الطبيعية

اعداد الباحثة: فاتن زياد حمدان ماضي

اشراف: د. أحمد نجم

#### ملخص الدراسة

تتطلب العديد من النساء المرضعات تناول الدواء، خاصةً تلك المتاحة بدون وصفة طبية، ويعتمد الاستخدام الآمن لهذه الأدوية على النصيحة المقدمة من الممرضات. هدفت هذه الدراسة إلى تقييم معرفة واتجاهات الممرضات تجاه الأدوية التي تؤثر على الرضاعة الطبيعية في عيادات الرعاية الصحية الأولية الحكومية في قطاع غزة .

أجريت دراسة وصفية لتحقيق هدف البحث. أجريت الدراسة لتقييم مدى معرفة واتجاهات الممرضات تجاه الأدوية التي تؤثر على الرضاعة الطبيعية في مراكز الرعاية الصحية الأولية الحكومية في قطاع غزة .والتي تضمنت عينة عشوائية تألفت من 150 ممرضة يعملون حالياً في مراكز الرعاية الصحية الأولية الحكومية في قطاع غزة .تم استخدام استبانة منظمه لإجراء المقابلات كأداة لجمع البيانات من الممرضات المستهدفات من العاملات في مراكز الرعاية الصحية الحكومية في جميع العيادات الـ 24 التابعة الى وزارة الصحة في قطاع غزة بمعدل استجابة 96% ولتحليل البيانات فقد تم استخدام برنامج الإحصاء المحوسب SPSS وتضمنت المعالجات الإحصائية التكرارات، النسب المئوية، المتوسطات الحسابية، الانحراف المعياري، كما تم استخدام اختبار (ت) واختبار تحليل التباين الأحادي.

وأظهرت نتائج الدراسة أن نصف (50%) من الممرضات اللواتي شاركن في الدراسة تتراوح اعمارهم ما بين 31-40 سنة، وأقل من نصفهن (40%) لديهن شهادة البكالوريوس، وأكثر من نصفهن (56%) لديهن خبرة تتراوح بين 11 - 20 سنة .كما أظهرت النتائج أن أكثر من ثلث (37.7%) من الممرضات كان لديهم نقص معرفة بالأدوية التي تؤثر على الرضاعة الطبيعية وأن ثلاثة أرباع (75%) من الممرضات لديهم مواقف إيجابية تجاه الأدوية التي تؤثر على الرضاعة الطبيعية . بالإجمال كشفت الدراسة أن الممرضات يحتفظن بمعلومات ضئيلة وأن لديهم معرفة جيدة تجاه الأدوية التي تؤثر على الرضاعة الطبيعية . وأثارت الدراسة الحاجة إلى توفير البروتوكولات وإعطاء العديد من الدورات في عملها حول الأدوية التي تؤثر على الرضاعة الطبيعية في هذه العيادات من أجل دعم هؤلاء الممرضات.